

Fig. 1

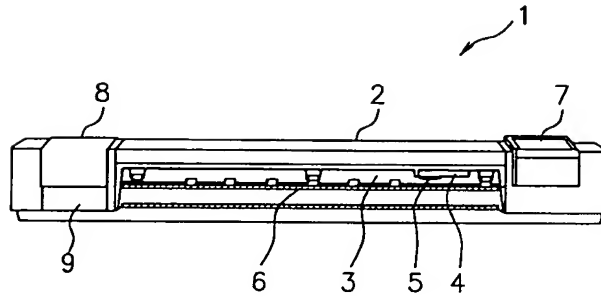
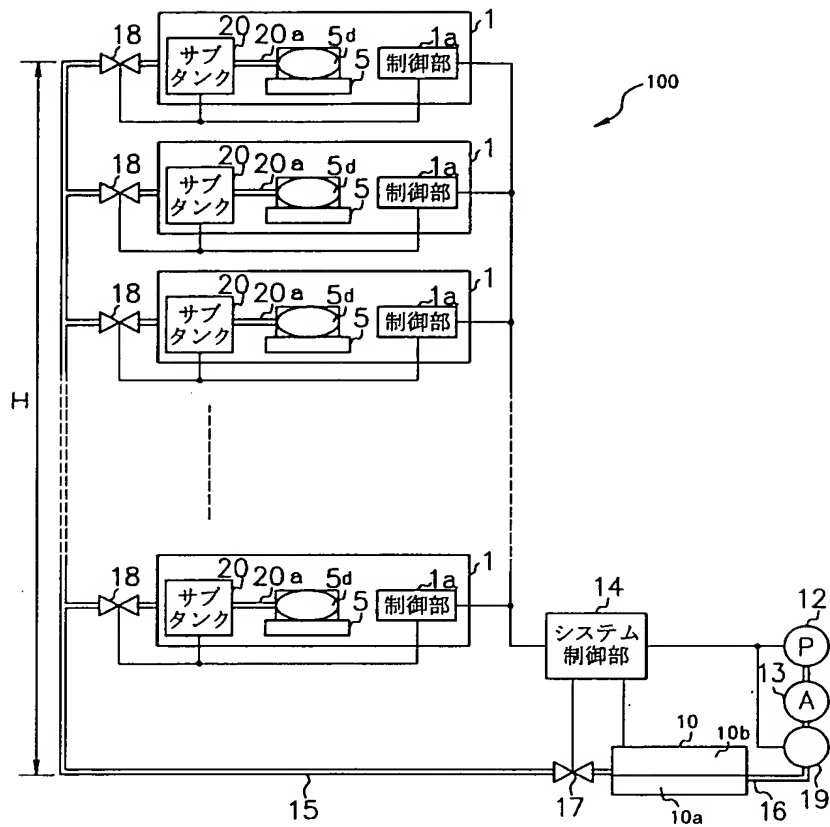


Fig. 2



12: controller

14: system controller

20: subtank

*Fig. 3*

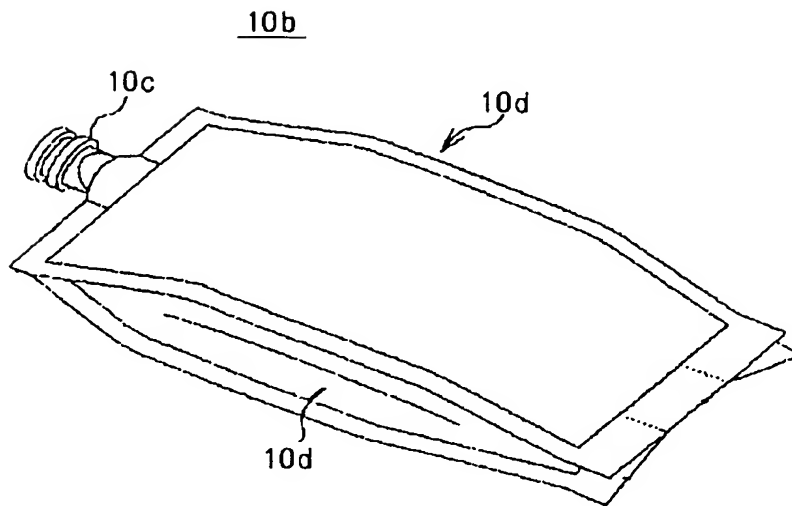


Fig. 4A

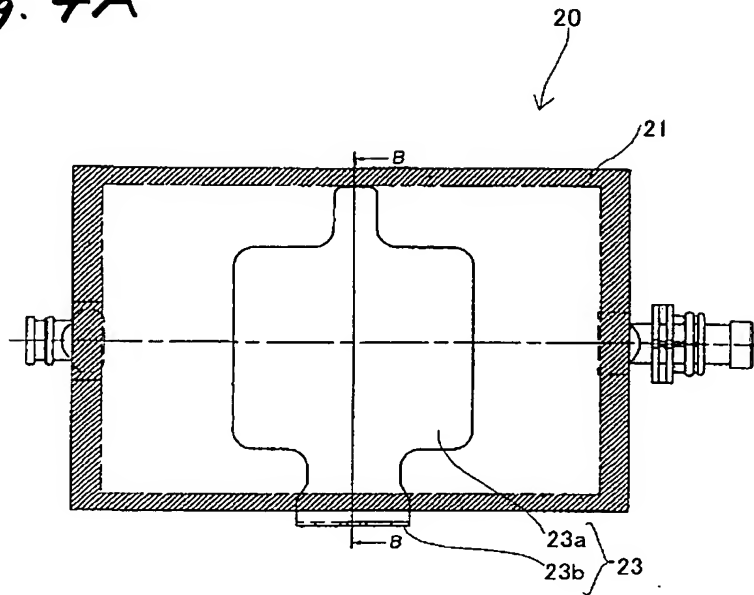


Fig. 4B

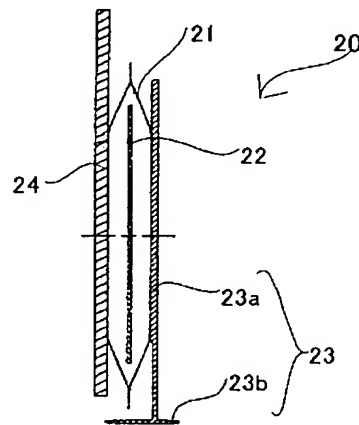


Fig. 5

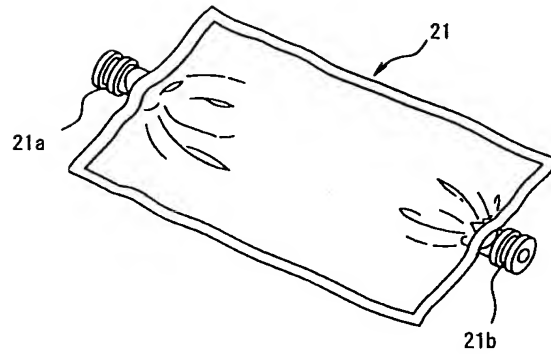


Fig. 6A

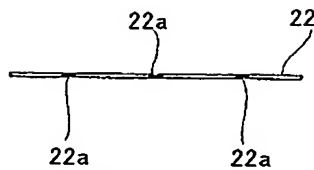


Fig. 6B

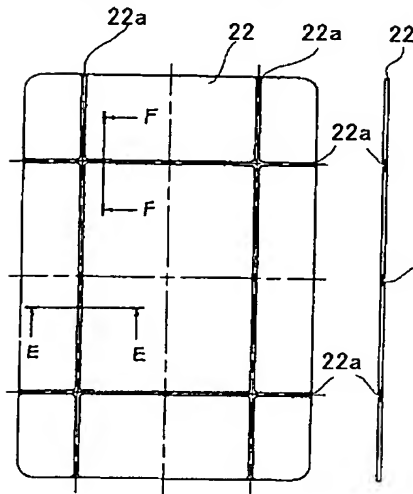


Fig. 6C



Fig. 6D

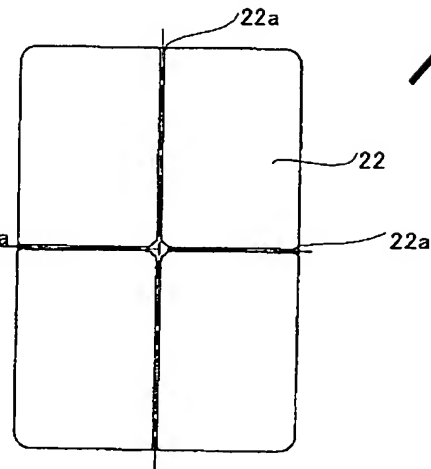


Fig. 6E

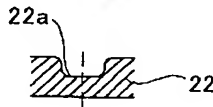


Fig. 6F

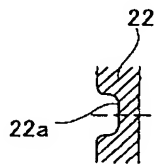


Fig. 7A



Fig. 7B

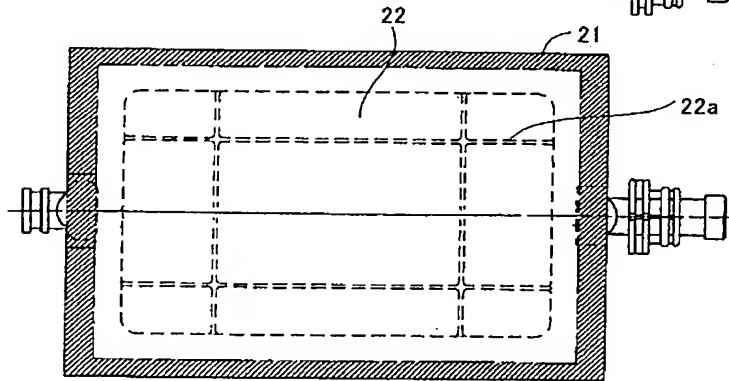


Fig. 8A

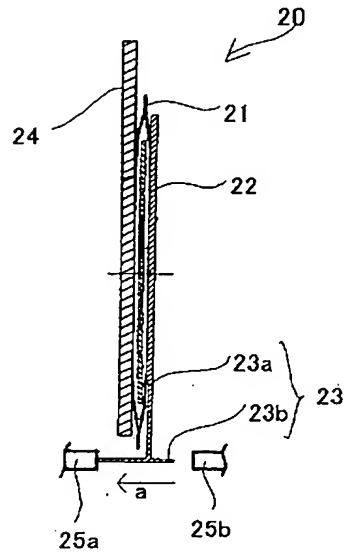


Fig. 8B

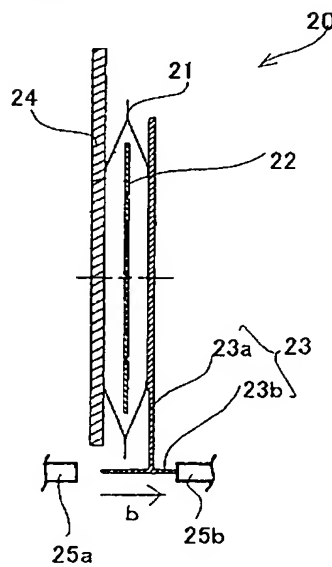




Fig. 9A



Fig. 9B

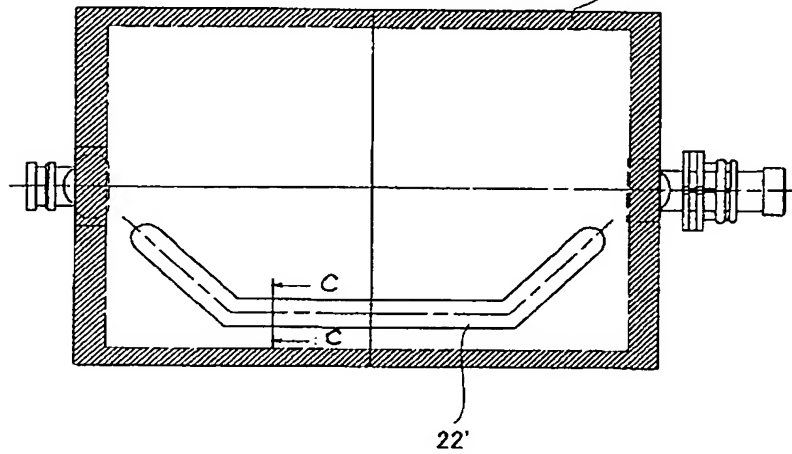


Fig. 9C

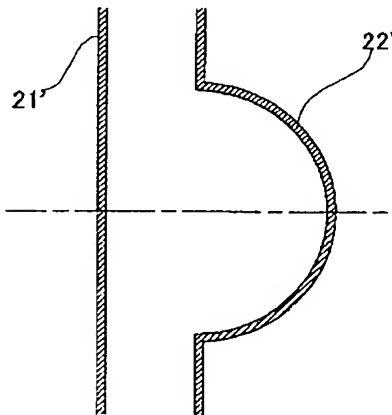
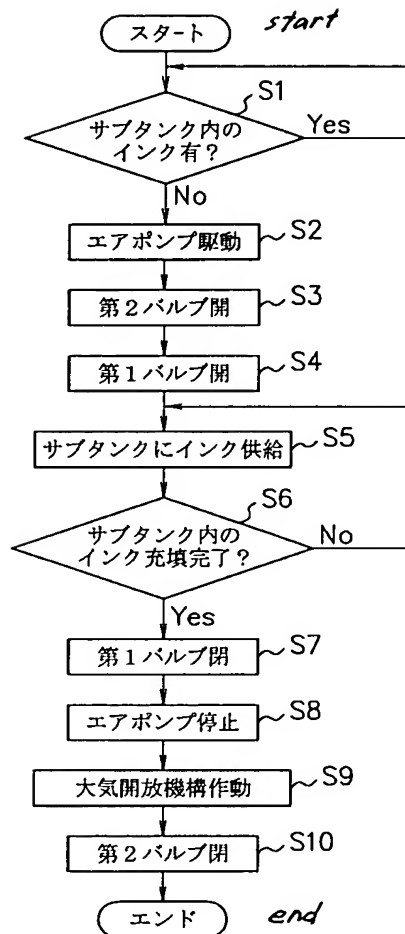
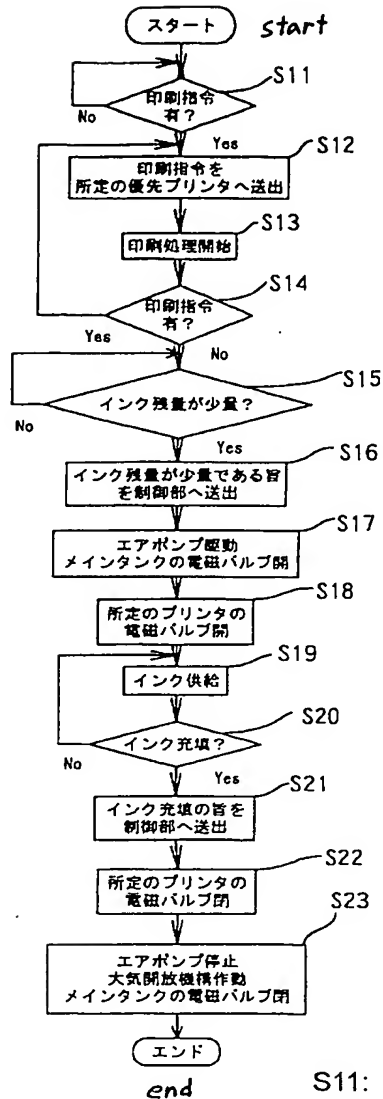


Fig. 10



- S1: ink is left in subtank?
- S2: drive air pump
- S3: open main valve
- S4: open subvalve
- S5: supply ink to subtank
- S6: ink replenishment to subtank is completed?
- S7: close subvalve
- S8: stop air pump
- S9: activate air releaser
- S10: close main valve

Fig. 11



- S11: print command is received?  
 S12: send print command to predetermined priority printer  
 S13: start print processing  
 S14: print command is received?  
 S15: ink low state?  
 S16: notify ink low state to controller  
 S17: drive air pump  
       open main valve  
 S18: open subvalve of priority printer  
 S19: supply ink to subtank of priority printer  
 S20: ink replenishment is completed?  
 S21: notify replenishment completion to controller  
 S22: close subvalve of priority printer  
 S23: stop air pump  
       activate air releaser  
       close main valve

Fig. 12

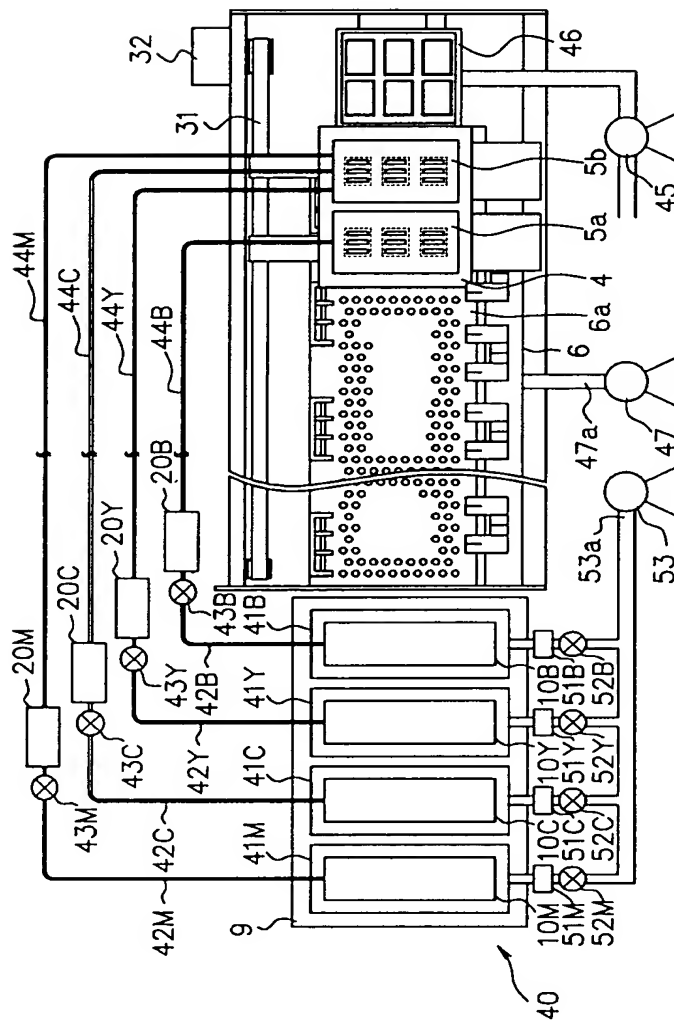


Fig. 13

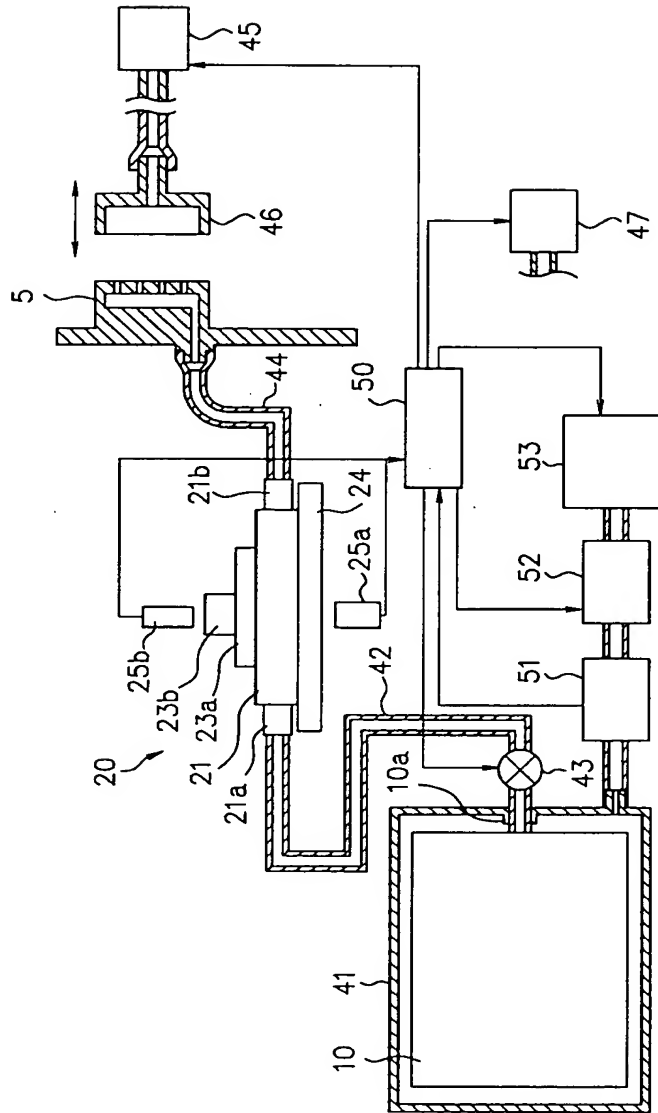
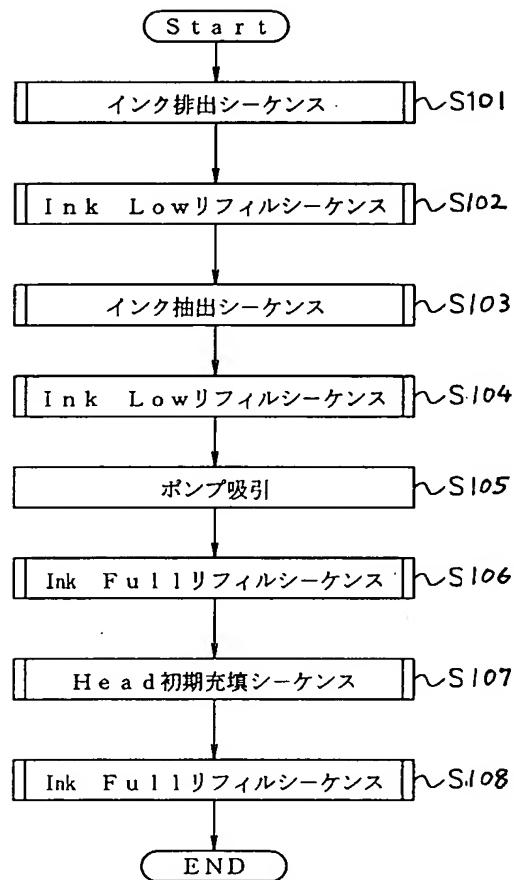
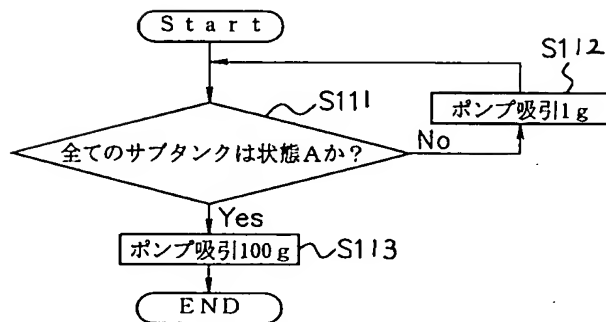


Fig. 14



- S101: exhausting sequence  
S102: refilling sequence (ink low state)  
S103: exhausting sequence  
S104: refilling sequence (ink low state)  
S105: ink suction  
S106: refilling sequence (ink full state)  
S107: initial filling sequence for head  
S108: refilling sequence (ink full state)

Fig. 15

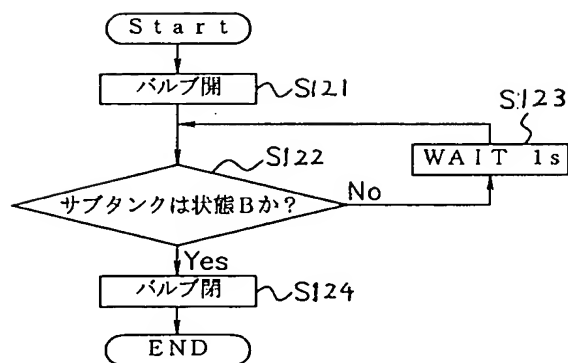


S111: all sub tanks are in ink low state?

S112: ink suction (1g)

S113: ink suction (100g)

Fig. 16



S121: open valve

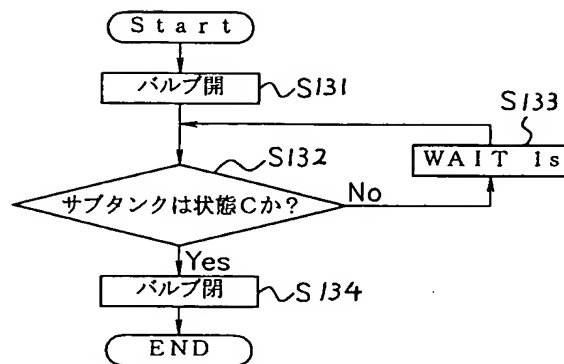
S122: subtank is in intermediate state?

S123: wait 1sec

S124: close valve



Fig. 17



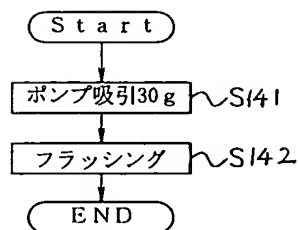
S131: open valve

S132: subtank is in ink full state?

S133: wait 1 sec

S134: close valve

Fig. 18



S141: ink suction (30g)

S142: flushing

Fig. 19

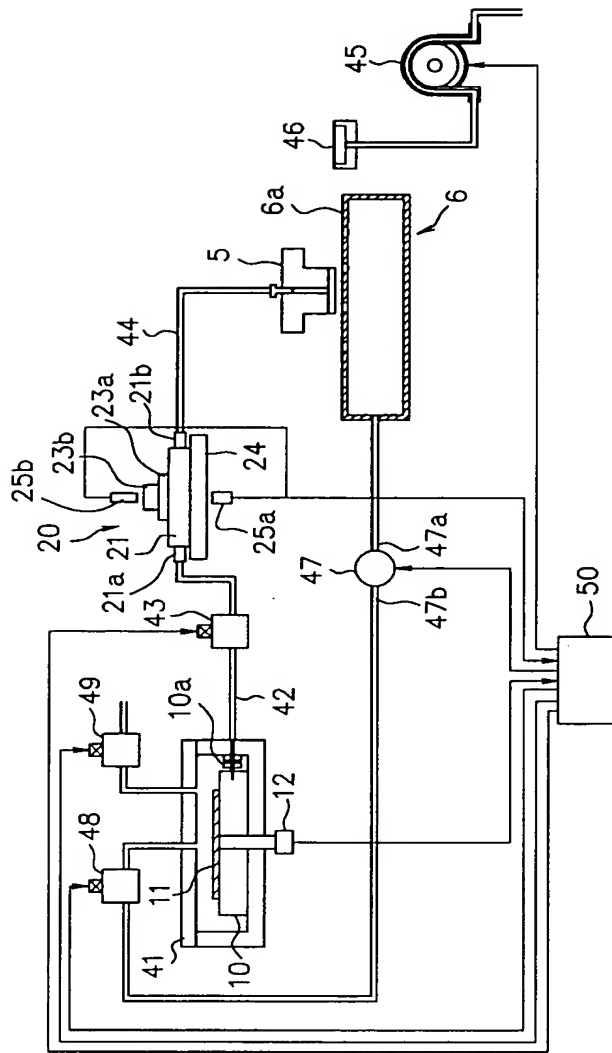
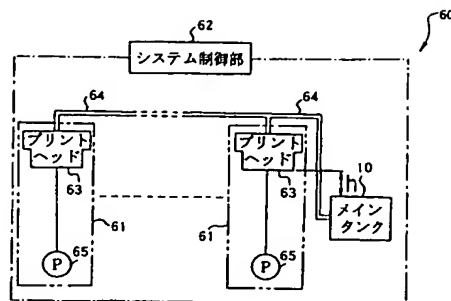


Fig. 20

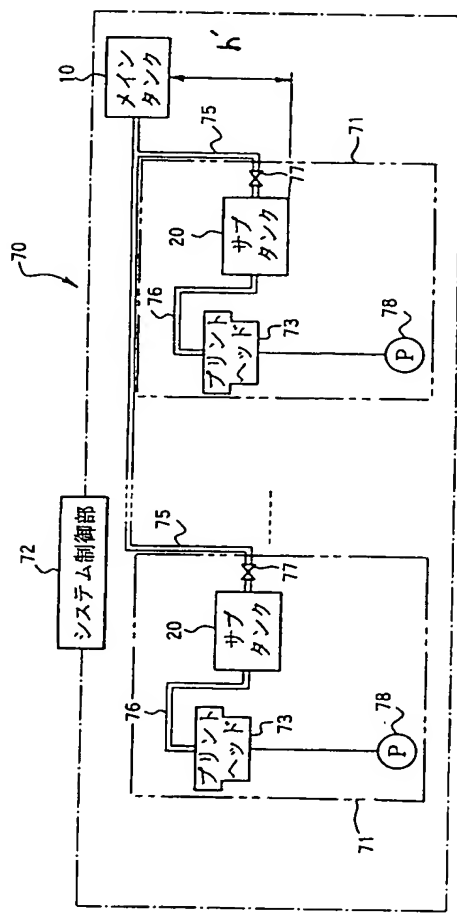


10: main tank

62: system controller

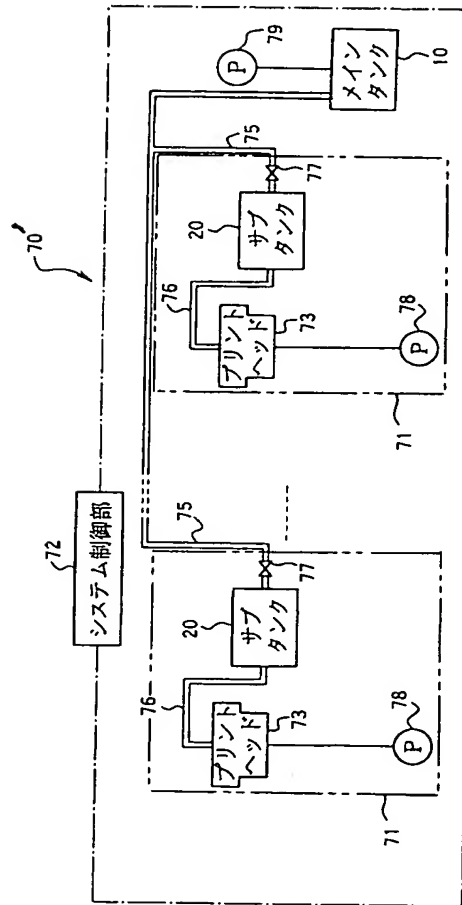
63: recording head

Fig. 21



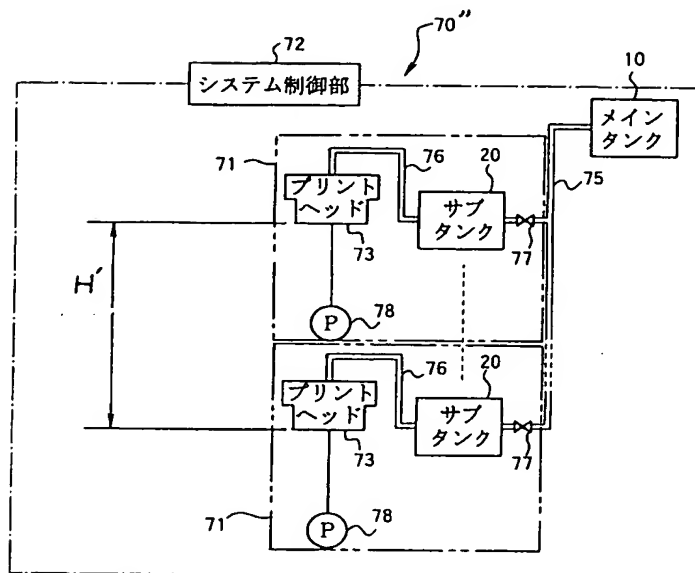
- 10: main tank
- 20: sub tank
- 72: system controller
- 76: recording head

Fig. 22



10: main tank  
 20: sub tank  
 72: system controller  
 73: recording head

Fig. 23



10: main tank

20: sub tank

72: system controller

73: recording head